

To: Bruce B.
(cc: Ed O'C., Bob B.)

OSA - 0525-67

cy. 1 of 2

Subject: Progress Report
Contract No. DC-1501
16 November 66 thru 15 January 67

1. R&D Effort

1.1 Thermal Balance Analysis
PPA vs. Cockpit Environment

No further activity has been accomplished during this reporting period. Information requested from [redacted]

STAT

1.2 Improved Communications Cord

The GN ACS880R helmets being supplied with the 1055, 1056 and 5-6 PPA's will have the new communications cord installed.

A DCN will be forwarded to the field, pertaining to new helmets only, by 15 February 67.

1.3 Improved LH Valve, Helmet O₂ System

The two (2) each valves that were shipped to the field on 15 November 66 have been returned to these facilities due to sluggish operation with low oxygen source pressure.

The difficulty has been identified with spring pressure on a check valve and bleed poppet valve. The condition has been corrected and after further testing, it is expected to redeliver these valves by 15 February 67.

1.4 Flotation Inflation Valve/Oral Inflation Valve Interlock

One (1) each unit has been installed on the GN S970 5-4 PPA and will be submitted with the suit for evaluation on 15 February 67.

1.5 Supplemental Thermal Protection

The constant flow valve was redesigned to provide an aneroid lockout during emergency conditions. The helmet was re-fitted with this valve, tested at these facilities, and found to operate satisfactorily.

1.5 Supplemental Thermal Protection (cont'd)

The helmet was shipped to the field for evaluation on 2 December 66. No report has been received on this item to date.

1.6 Visor Latch, Positive Lock

The redesign of this latch has been completed and a prototype has been made up. The latch will be installed on the 5-2 helmet for field evaluation by 15 February 67.

1.7 Auxiliary Flotation Gear

Further testing is being conducted on this item and an endeavor is being made to obtain a CO₂ bottle with a greater capacity without increasing the physical size of the bottle.

We are also awaiting receipt of an automatic inflator valve which Ed M. is providing and has requested to be put on this unit.

The assembly is installed on the 5-2 PPA and is expected to be shipped by 15 February 67.

1.8 Increase of Suit Flotation

The present undersuit flotation garment is being studied in an effort to provide greater buoyancy in the water and as discussed with Bruce on his last visit to help with the face-down problem.

It is hoped that a prototype garment will be ready for testing by 28 February 67.

1.9 Manual Access to CO₂ Valves

The relocation of the CO₂ inflator has been accomplished on the GN S970 5-4 PPA.

1.10 Improved Accessibility of Oral Valve

This work has been completed and included in the GN S970 5-4 PPA for water survival tests.

1.11 Life Raft

The modification of a standard project raft into an open-end dual cell unit has been accomplished for evaluation purposes except for a CO₂ pressure transfer valve. A valve is presently being designed and a prototype is expected to be completed within the next reporting period.

A prototype raft will be fabricated and submitted for evaluation approximately 28 February 67. Standard yellow raft material is on order.

1.12 Study of Helmet Shell Protective Features

A report will be submitted on this item before 15 March 67.

1.13 Improved Water Drainage from Coverall Legs and Pockets

An ECP will be processed covering this item. Modification kits are being assembled for the PPA's in the field.

The modification has been included in the 1055, 1056 and 5-4 PPA's.

1.14 Feasibility Study of Heating Gloves During Parachute Descent

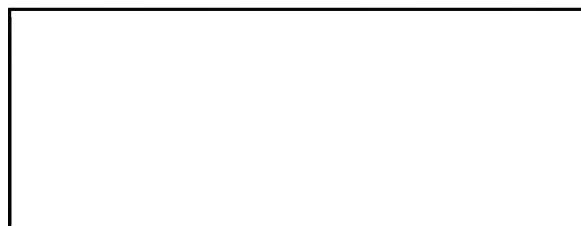
Investigations indicate a feasibility which needs to be carried through a prototype fabrication and tests. An authorization to proceed with prototype is requested.

1.15 Improved Visor Up-Lock

The interface of the latch with the visor cam has been increased to give a more positive locking action.

1.16 Super-Spacer Undergarment

Subject 1054 has been assigned for this item and work has been started on the design of the garment. Expected completion date is 20 February 67.

STAT

JAR/es

ITEMS REMAINING TO BE DELIVERED 15 January 1967
 New Equipment and ~~Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160024-6~~
 Contract No. DC-CT-1503

JAR-856-1747
 27 January 1967
 Page 4 of 6

<u>Purchase Request No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
PR-GN-67-07-25-005	1	6 pr GN 10434G01 Ear Cup	31 January 67
PR-GN-67-08-23-009	Common	60 ea GN A2859 CO ₂ Inflator	31 January 67
PR-GN-67-11-16-031	1	1 ea GN ACS1225, 1226, 2216, 2217 Hose Assy and GN A2859 CO ₂ Inflator for GN ACS1438 Coverall, S/N 1045-4	15 March 67 - Hose Assy 10 February 67 - Inflator
PR-GN-67-09-14-011	1	4 ea GN P6178 Valve, Exhalation	3 February 67
PR-GN-67-10-04-020	1	4 ea GN S970 Pilots Protective Assy, 2 ea S/N 1055, 2 ea S/N 1056	1055 - 1 ea 8 Feb - 1 ea 15 Mar 1056 - Helmet, Boots & Gloves 15 Feb - Suitheld at plant 2nd PPA 30 March 67
PR-GN-67-10-17-025	1	1 ea GN ACS880R Helmet and GN ACS1225, 1226, 2216, 2217 Hose Assy for GN S970 PPA, S/N 5-6	6 February 67 - Helmet 30 April 67 - Hose Assy
PR-GN-67-11-18-033	1	8 ea GN ACS1408-8L Bladder, Glove	25 January 67
	1	8 ea GN ACS1408-8R Bladder, Glove	25 January 67
PR-GN-67-11-23-035	1	10 ea GN ACS2201-2 Insert, Oval Top Pad, Helmet	18 January 67
PR-GN-67-12-08-040	2	25 ea GN P7776 Manifold {3-hole}	20 January 67
	2	1 ea GN ACS1628 Coverall Ext., XLR S901F	24 February 67
	2	5 ea GN ACS325 Fitting, Bioinstrumentation	30 January 67
	2	75 ea GN A2692 Wing Nut Assy	27 January 67
	2	3 ea GN 10425G05 Shell, F/P Glove	18 January 67
	2	3 ea GN 10425G06 Shell, F/P Glove	18 January 67
	2	16 pk GN P3004 Tubing, Heat Shrinkable	30 January 67
	1	1 ea GN A2859 CO ₂ Inflator and GN P8239 CO ₂ Cylinder for GN ACS1617-3 Flotation Garment, S/N 17	10 February 67

ITEMS REMAINING TO BE DELIVERED 15 January 1967
Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160024-6
New Equipment and Spare Parts
Contract No. DC-CT-1503

JAR-856-1747
Page 5 of 6

<u>Purchase Request No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
PR-GN-67-11-30-038	2	2 ea GN 10425G15 Shell, F/P Glove	18 January 67
	2	3 ea GN 10425G16 Shell, F/P Glove	18 Jan 2 ea--30 Jan 67 1 ea
PR-GN-67-12-22-042	1	1 ea GN 10611G01 Cover, Ext. S/N 1046-3	30 January 67
	2	6 ea GN P-B2790 Pinion	6 February 67
	1	5 ea GN P2886 Dumore Flexshaft	6 February 67
PR-GN-67-11-28-037	2	13 ea GN ACS1408-3L Bladder, Glove Assy	25 January 67
PR-GN-67-12-12-041	1	100 ea GN P6207 Cone, Felt	20 January 67

ITEMS REMAINING TO BE DELIVERED 15 January 1967

Repair and Modification

Approved For Release 2003/03/10 : CIA-RDP75B00285R000300160024-6

Contract No. DC-TM-1504

JAR-856-1747
27 January 1967
Page 6 of 6

<u>Work Order No.</u>	<u>Customer</u>	<u>Description</u>	<u>Estimated Delivery Date</u>
To be advised	1	To be modified to GN A2885 configuration: 1 ea GN ACS-H880N Helmet	Being held pending customer decision
W/O-GN-67-10-06-006	1	To be repaired: 1 ea GN P6178 Valve, Exhalation	20 February 67
W/O-GN-67-10-25-008	1	To be resized: 1 ea GN 10091G01&02 Gloves, S/N 1054 For GN ACS1438 Coverall, S/N 1050-4 1 ea GN A2859 Actuator, CO ₂	30 January 67 6 February 67
W/O-GN-67-11-29-011	1	To be modified: 1 ea DN 57000-3 Life Raft	Work completed Held for disposition
W/O-GN-67-12-19-014	1	To be resized: 1 ea GN 10091G01&02 Glove, S/N 1054-3 1 ea GN 10374G01&02 Glove, S/N 17-2	23 Jan 67 23 Jan 67
W/O-GN-67-12-28-015	1	Hardware to be removed from: 1 ea GN 10091G01 & 1 ea GN 10016G01, S/N 5 & used for 1 ea GN 10091G01&02 Gloves To be tested: 1 ea GN ACS340 Wrist Disconnect	23 January 67 15 February 67
W/O-GN-67-12-13-013	1	Receiving & Shipping Record Purposes Only 6 Items received & to be replaced {For GN S970 PPA, S/N 1055 & 1056, PR-GN-67-10-04-020}	Upon receipt from supplier